Abstracts

These selected abstracts and titles from the world literature are arranged in the following sections:

Syphilis and other treponematoses *(Clinical and therapy)*

Yaws in an Island and in a Coastal Population in New Guinea

GARNER, M. F., HORNABROOK, R. W. and BACKHOUSE, J. L. (1972) *Papua New Guinea med. J.*, **15,** 136

This study was to estimate the prevalence of serological yaws in two adjacent New Guinea locations, where clinical evidence of this disease had either greatly diminished or entirely disappeared, namely on Kar Kar Island and Medang (a mainly coastal mainland area). Both areas are relatively developed communities which enjoy communication with each other and with the outside world.

CWR, VDRL, RPCFT, and FTA-ABS tests were carried out on 986 sera from the Kar Kar and 117 from the Medang populations: a TPI test was also carried out on all these sera and positivity was taken as evidence of yaws, since there was no clinical evidence of syphilis from either area.

38·5 per cent. of the Medang as against 67·5 per cent. of the Kar Kar sera were TPI-positive, there being a preponderance of males in both areas. The greatest prevalence of serological yaws in both populations was in the 30 to 44-year age group, being 56·3 and 82·6 per cent. respectively for the two localities. The contrast was greatest in the 0 to 15-year age group, only 15·4 per cent. of those from Medang against 61·2 per cent. from Kar Kar being positive TPI reactors; none of the children showed clinical evidence of yaws. Although a total of 41 children from Kar Kar showed high-titre positivity for CWR and VDRL, surprisingly only ten of these showed clinical signs of yaws: moreover, only three out of 22 Kar Kar adult high-titre CWR and VDRL reactors showed clinical evidence of yaws.

The lack of correlation between strongly positive CWR and VDRL results and clinical evidence of yaws is thought by the authors to indicate altered host response. The absence of high-tire reactors amongst the Medang group was thought to indicate inadvertent treatment of yaws through the widespread use of penicillin for other conditions.

The authors point out that elimination of yaws must depend on the institution of comprehensive treatment and follow-up schedules. The increasing lack of physical signs of yaws will make the detection of reservoirs of infection more difficult in the future. *J. D. H. Mahony*

Recent Advances in Venereology. I. Syphilis.

WILLCOX, R. R. (1973) *Brit. J. clin. Pract.*, **27,** 115

Secondary Syphilis affecting the Nails

(Syphilis secondaire. Atteinte unguéale) LABOUCHE, F., and DEROFF, P. (1972) *Bull. Soc. franç. Derm. Syph.*, **79,** 480

Clinical Characteristics of the Herxsheimer Reaction

GAUKHMAN, V. D., and MILYAVSKY, A. I. (1973) *Vestn. Derm. Vener.*, No. 3, p. 42

Congenital Syphilis: a Review of its Present Status and Significance in Pediatrics

(Ben H. Nicholson Memorial Lecture) PETERSON, J. C. (1973) *Sth. med. J. (Bgham, Ala.)*, **66,** 257

Iodine-bromium Waters in The Treatment of Patients with Syphilis

ZORIN, P. M. (1973) *Vestn. Derm. Vener.*, No. 3, p. 42

Penicillin in the Treatment of Syphilis

LEADING ARTICLE (1973) *Brit. med. J.*, **1,** 259

Syphilis *(Serology and biological false positive phenomenon)*

Reliability of the Treponemal Haemagglutination Test for the Serodiagnosis of Syphilis

BLUM, G., ELLNER, P. D., MCCARTHY, L. R., and PAPACHRISTOS, T. 1973) *J. infect. Dis.*, **127,** 321

Automated reagin (AR), absorbed fluorescent treponemal antibody (FTA-ABS), and treponemal haemagglutination (TPHA) tests were performed on 224 sera submitted for screening tests for syphilis and on 82 selected sera which gave positive results for heterophil antibody, antinuclear or rheumatoid factors, or were from patients with hypergammaglobulinaemia.

The overall agreement between the results of the TPHA and FTA-ABS tests was 90·2 per cent. Thirty sera gave discrepant results. In fifteen of these the FTA-ABS test was positive and the TPHA test negative; seven of these patients were known to have syphilis and two had symptoms suggestive of the disease. Fourteen of the fifteen sera with negative FTA-ABS but positive TPHA tests came from patients who were assessed as not having syphilis; the AR test was also positive in five of these. The high proportion of presumed false

positive and false negative results in this series leads the authors to question the reliability of the TPHA test and to prefer the FTA-ABS test to it.

A. E. Wilkinson

[Reprinted from *Abstracts on Hygiene*, by permission of the Editor.]

The *Treponema pallidum* Haemagglutination (TPHA) Test in Biological False Positive and Leprosy Sera GARNER, M. F., BACKHOUSE, J. L., DASKALOPOULOS, G., and WALSH, J. L. (1973) *J. clin. Path.*, **26,** 258

TPHA tests were performed on three groups of sera: 274 had given biological false positive (BFP) reactions in a VDRL test or cardiolipin WR as judged by negative results with TPI and FTA-ABS tests, 267 were from patients with lepromatous leprosy, and the third group were from 329 presumed normal persons whose sera gave negative VDRL, CWR, TPI, and FTA-ABS tests.

The TPHA test was found positive in 31 of the 274 BFP sera; quantitative tests on 24 of these gave titres of 80 to 2,560. Reactivity could not be correlated with any particular clinical condition. Fourteen of the sera from patients with leprosy gave positive TPHA, TPI, and FTA-ABS tests; these were thought to indicate a double infection with syphilis, as yaws was unknown among these patients. 26 of the sera gave BFP reactions with the CWR (2) or VDRL test (24); TPHA tests were positive on three of these and on a further four sera on which all the other tests gave negative results. Only one serum in the presumed normal group gave a positive TPHA test.

The authors recommend that, when the TPHA and tests for reagin are found positive without any clinical evidence or history of treponemal disease, TPI and FTA-ABS tests should also be carried out. This incidence of presumed false positive TPHA tests is considerably higher than other workers have reported.

A. E. Wilkinson

[Reprinted from *Abstracts on Hygiene*, by permission of the Editor.]

FTAA-BS Test Reading made Easy KRONVALL and GREDMARK (1972) *Acta. path. microbiol. scand., Sect. B.*, 80*B*, 993

The Haemagglutination Test in the Serology of Syphilis (Der Haemagglutinationstest in der Lues-Serologie in Vergleich zu den spezifischen Testen TPI und FTA-ABS) KRAFT, D., MORGENSTERN, H., RAFF, M. and SÖLTZ-SZÖTS, J. (1973) *Z. Haut-u. Geschl.-Kr.*, **48,** 221

Use of Computer Techniques for Data Processing in a Serological Laboratory CLOSS, O., DIGRANES, A. HELLENE, S., LEHMANN, E. H., and TØNDER, O. 1973) *T. norske Laegeforen.*, **93,** 179 (English abstract)

Serological Aspects of Treponemal Re-infection. A Study of 50 Cases (Aspect sérologique des récontaminations tréponémiques (à propos de 50 cas)) FRIBOURG-BLANC, A., and SIBOULET, A. (1972) *Bull. Soc. franç. Derm. Syph.*, **79,** 454

Syphilis (*Pathology and experimental*)

Ultrastructural Studies of Treponemes: Location of Axial Filaments and Some Dimensions of *Treponema pallidum* (Nichols Strain), *Treponema denticola*, and *Treponema reiteri*

SYKES, J. A., and MILLER, J. N. (1973) *Infect. and Immun.*, **7,** 100

The electronmicrographic appearances of ultrathin sections of *Treponema pallidum* extracted from infected rabbit testes are compared with those of the cultivable *Treponema denticola* and the Reiter treponeme. The average diameter of *T. pallidum* was found to be $163 \pm 1{\cdot}9$ nm. (mean of 50 to 100 measurements). It consisted of a protoplasmic core separated by an electron lucent area from a limiting membrane. Outside this membrane lay the axial filaments; these were $21 \pm 0{\cdot}73$ nm. in diameter with a central electron lucent area 8 nm. across. No cell envelope external to the axial filaments was seen, although this has been reported by other workers. In *T. denticola* and the Reiter treponeme the axial filaments were seen to lie between an outer cell envelope and the membrane covering the protoplasmic core; they appeared to be solid structures. The mean external diameters of these two organisms were $224{\cdot}9 \pm 2{\cdot}83$ nm. and $331 \pm 4{\cdot}3$ nm. respectively. The structural differences and differences in size could be used to distinguish *T. pallidum* from the two cultivable treponemes.

A. E. Wilkinson

[Reprinted from *Abstracts on Hygiene*, by permission of the Editor.]

Influence of Metronidazole on *Treponema pallidum in vivo* and *in vitro* HOLM, S. E., and MOBACKEN, H. (1972) *Acta derm.-venereol. (Stockh.)*, **52,** 323

The effect of metronidazole in different concentrations on *Treponema pallidum* (Nichol) was tested *in vitro* and *in vivo* in rabbits. Under conditions similar to the TPI test, an immobilization of the spirochaetes was demonstrated at 10 μg./ml. and higher. No effect was seen below 1 μg./ml. This immobilization was not complement dependent and therefore cannot be mistaken for a specific TPI antibody mediated reaction. Experiments in rabbits with syphilitic orchitis failed to disclose any effect of metronidazole on the spirochaetes, even in concentrations considerably higher than the currently recommended dose in man.

(Authors' summary)

Localization of *Treponema pallidum* in Skin Lesions of Primary and Secondary Syphilis METZ, J., and METZ, G. (1972) *Germ. Med.*, **11,** 56

Electron Microscopy of Late Interstitial Keratitis EDMONDS, C., and IWAMOTO, T. (1972) *Ann. Ophthal. (Chicago)*, **4,** 693

Electron Microscopy of *Treponema cuniculi* HOUGEN, K. H., BIRCH-ANDERSEN, A., and JENSEN, H.-J. S., (1973) *Acta path. microbiol. scand.*, **81,** 15

Immunity in Syphilis OVČINNIKOV, N. M. (1973) *Vestn. Derm. Vener.*, No. 3, p. 36

Gonorrhoea (*Clinical*)

Gonococcal Endocarditis

TANOWITZ, H. B., ADLER, J. J., and CHIRITO, E. (1972) *N.Y. St. J. Med.*, 72, 2782 (12 refs)

A 14-year-old Puerto Rican girl developed a rare condition, gonococcal endocarditis, complicated by aortic insufficiency. She was admitted to Lincoln Hospital, New York, with a 2-week history of chills and fever which began on August 6, 1970, and was followed by a maculo-papular rash on the thighs and forearms, and 4 days later by arthralgia of the right knee and third toe of the right foot. She had had sexual intercourse a month previously with a soldier recently returned from Vietnam.

Her blood pressure on admission was 140/80 mm. Hg, heart rate 120 per minute and regular, and rectal temperature 105°F. No clinical cardiomegaly was found, and no heart murmurs or rubs. Apart from a purulent vaginal discharge, the genitalia were normal. The white blood count was 16,000 per ml. and the cerebrospinal fluid was normal. *Neisseria gonorrhoeae* was isolated from blood cultures taken on the day of admission, but not from a vaginal specimen, although Gram-negative intracellular diplococci were seen on a vaginal smear.

On August 22, intravenous aqueous penicillin 24 m.u. daily was given, and this was continued until August 26, when intramuscular procaine penicillin 4·2 m.u. daily was substituted. On August 31, loud aortic systolic and diastolic murmurs were heard; the blood pressure at this time was 100/50 mm. Hg. On September 2 intravenous penicillin 24 m.u. daily was given, and this was continued until October 5. Chest and cardiac *x*-rays and echocardiography were normal. A phonocardiogram confirmed the murmurs of aortic stenosis and insufficiency. Long-term follow-up has shown no change in the cardiac findings, and at no time have there been symptoms or signs of congestive cardiac failure.

In the pre-antibiotic era approximately 4 to 10 per cent. of all cases of endocarditis were due to *N. gonorrhoeae*, but since 1940 only single cases have been reported. *A. G. Lawrence*

Primary Extragenital Cutaneous Gonorrhoea

PRAGER, K. M. (1973) *Arch. Derm.*, **107**, 112

This is a report of a patient with a pustule on the finger, associated lymphangitis, and regional lymphadenopathy. Gram-staining, direct fluorescent antibody testing, and culture on Thayer-Martin medium confirmed the diagnosis of gonorrhoea. There was a history of digital-genital contact with a sexual partner (who was never found), and of a traumatic injury to the finger a few hours before the contact. There was no urethral discharge and manual attempts to express urethral contents for culture were unsuccessful. The author emphasizes that lymphangitis has not been described with metastatic gonococcal skin lesions, but was present in a previous case report of extragenital primary cutaneous gonorrhoea.

J. R. W. Harris

Antenatal Gonococcal Arthritis

BADDELEY, P., and SHARDLOW, J. P. (1973) *J. Obstet. Gynaec. Brit. Cwlth*, **80**, 186

This short report of two cases of gonococcal arthropathy from the Department of Obstetrics, Dulwich Hospital, underlines the need for awareness of the systemic complications of gonococcal infection. It is of interest that both patients were nurses, both were initially thought to have rheumatic fever, and while one girl had a monoarthropathy of 6 weeks' duration before diagnosis, the other was not diagnosed despite the presence of tenosynovitis and polyarthropathy until after delivery when the infant was found to have gonococcal ophthalmia.

J. R. W. Harris

Clinical Spectrum of Pharyngeal Gonococcal Infection

WIESNER, P. J., TRONCA, E., BONIN, P., PEDERSEN, A. H. B., and HOLMES, K. K. (1973) *New Engl. J. Med.*, **288**, 181

Between 1967 and 1970, swabs, later inoculated on to Thayer-Martin selective medium, were taken from patients suspected of harbouring oropharyngeal gonococcal infection, confirmation of *N. gonorrhoeae* being made by sugar fermentation tests. *N. gonorrhoeae* was isolated from 25 out of 142 patients.

As a result of these findings, a prospective study on oropharyngeal gonococcal infection was made at Seattle, U.S.A., for 9 months in 1970-1971.

At first, all patients attending had cultures taken from the oropharynx. However, it was realized that this was unnecessary in heterosexual men and women not practising fellatio. Thus, for the last 6 months, pharyngeal cultures were obtained only from homosexuals and women practising fellatio or complaining of sore throat.

217 heterosexuals, 143 homosexuals, and 1,864 women were examined by pharyngeal cultures. The results of *Neisseria* species isolated on Thayer-Martin medium from the posterior pharynx of 2,224 patients showed *N. meningitidis* 383 (17·2 per cent.), *N. gonorrhoeae* 125 (5·6 per cent.), and *N. lactamicus* 42 (1·9 per cent.). Ninety of 97 pharyngeal isolates of *N. gonorrhoeae* reacted with the specific absorbed immunofluorescent gonococcal antiserum, whereas only one (0·7 per cent.) of 154 isolates of *N. meningitidis* gave a positive reaction.

The prevalence of pharyngeal gonococcal infection was found to be significantly greater in women and homosexual men than in heterosexuals, being 1·4 per cent. in heterosexuals, 9·8 per cent. in homosexuals, and 6·0 per cent. in 598 consecutive women. The small number of pharyngeal infections in heterosexual males did not permit statistical analysis of the role of cunnilingus in the acquisition of pharyngeal infection. However, it may be noted that 316 (66 per cent.) of 479 consecutive heterosexual males had recently practised cunnilingus. Symptoms of pharyngitis were found to occur in significantly greater proportion in those who practised fellatio; however, these symptoms could not be correlated with gonococcal pharyngeal infection.

There was one failure of treatment in 36 patients given 4·8 m.u. intramuscular procaine penicillin G; one in nine given 4·8 m.u. intramuscular procaine penicillin G and 1 g. probenecid. There were no failures in nineteen given 2 g. tetracycline hydrochloride daily in divided doses for 5 days; but pharyngeal infection

persisted in seven of thirteen patients given 4 g. spectinomycin intramuscularly.

The authors spotlight some interesting cases of pharyngeal gonococcal infection seen in their practice. Of sixty patients with disseminated gonococcal infection seen in 2 years, *N. gonorrhoeae* was isolated from the pharynx in ten (17 per cent.). Gonococcal tonsillitis was seen in a boy of 4, who had orogenital contact with his mother's sexual partner who had previously developed gonococcal urethritis. Gonococcal gingivitis was seen at the sites of incisions after dental extraction, in a patient (sex not stated) who had recently practised fellatio. *Michael Waugh*

Gonorrhoea and the Pediatrician
BARRETT-CONNOR, E. (1973)
Amer. J. Dis. Child., **125,** 233

Gonococcal Arthritis: a Report of Six Cases FAM *et al.* (1973)
Canad. med. Ass. J., **108,** 319

Gonorrheal Polyarthritis
CORRESPONDENCE (1973) *New Engl. J. Med.*, **288,** 218

Asymptomatic Gonorrhoea in Women: a Prevalence Survey in Sydney, Australia
ELLERMAN, L., FISHER, S., GILL, R.C., HYSLOP, R. S., JENNIS, F., O'CONNOR, B. F., and OSBORN, R. A. (1973)
Med. J. Aust., **1,** 289

Gonorrhoea (*Microbiology*)

Culture Diagnosis of Gonorrhoea
DANIELSSON, D., and JOHANNISSON, G. (1973) *Acta derm.-venereol.* (*Stockh.*), **53,** 75
Seventy men and 75 females attending the out-patient clinic for venereal diseases in Orebro, Sweden, were examined for gonococcal (GC) infections by direct microscopy, culture on selective and non-selective GC media in the clinic, and after transport of specimens for 18 to 20 hrs in modified Stuart's transport medium (STM). The highest yield of a diagnosis of gonorrhoea was obtained by the combined use of selective and non-selective GC culture media and by inoculating these in the clinic. Compared with culture, direct microscopy gave a good reproducibility in the male group while it was quite inadequate in the female group. With regard to individual patients, a good reproducibility of positive results was obtained by culture in the clinic as compared with those obtained in the laboratory after transport of the specimens; in the male group a diagnosis was reproduced in 95 per cent., and in the female group in 97 per cent. However, if only one GC medium had been used in the clinic, selective or non-selective, 6 per cent. of the females would have escaped a diagnosis of gonorrhoea. After transport of the specimens to the laboratory, 9 per cent. of the females would have escaped a positive diagnosis if only selective GC medium had been used, and as many as 12 per cent. if only non-selective GC medium had been used. The epidemiological significance of these findings is discussed.

(*Authors' summary*)

Indirect Fluorescent-Antibody Technique for Study of Uncomplicated Gonorrhoea. I. Methodology. WELCH, B. G., and O'REILLY, R. J. (1973) *J. infect. Dis.*, **127,** 69
An indirect fluorescent-antibody technique was developed for detection of antibodies to *Neisseria gonorrhoeae* in sera from patients with uncomplicated gonorrhoea. The test antigen is a strain of *N. gonorrhoeae* selected for its stability in the laboratory and for its reactivity with sera from culturally positive females. A 1:16 dilution of sera obviated the reactivities associated with natural antibodies in normal sera. The specificities, strengths, and degree of fluorescence of the conjugate were defined to establish data for comparison with other polyvalent reagents and to minimize preferential recognition of any one immunoglobulin class. 79 per cent. of sera from culturally positive females were reactive; only 4 per cent. of sera from culturally negative females reacted in the test. Reproducibility was 94 per cent. as judged by duplicate examination of 340 coded sera. The discrepant pairs (6 per cent.) were read as either 1+ or 2+ fluorescence. Only 15 per cent. of the 340 sera were on the borderline (1+, 2+) area where judgment of fluorescence is most critical.

(*Authors' summary*)

Indirect Fluorescent-antibody Technique for Study of Uncomplicated Gonorrhea II. Selection and Characterization of the Strain of *Neisseria gonorrhoeae* used as Antigen
O'REILLY, R. J., WELCH, B. G., and KELLOGG, D. S., JR. (1973)
J. infect. Dis., **127,** 77

Viability of *N. gonorrhoeae* in Transport Media
KHANDHARI, K. C., PRAKASH, O., SINGH, O. P., SOOD, P., PASRICHA, J. S., and BHUJWALA, R. A. (1972)
Indian J. med. Res., **60,** 1418

Physical Evidence of a Plasmid in *Neisseria gonorrhoeae*
ENGELKIRK, P. G., and SCHOENHARD, D. E. (1973) *J. infect. Dis.*, **127,** 197

Gonorrhoea (*Therapy*)

Oral Ampicillin in Uncomplicated Gonorrhoea. V. Comparison of Bacteriological and Clinical Results
ERIKSSON, G., and WALLMARK, G. (1972) *Acta derm.-venereol.* (*Stockh.*), **52,** 419
This report is the fifth part of a comparative study of oral ampicillin and intramuscularly injected penicillin G in the treatment of uncomplicated gonorrhoea. The statistical evaluation of 4,247 patients (2,419 men and 1,828 women) showed no significant difference between the following treatment groups:

2·2 m.u. penicillin G (1·0 m.u. Na salt + 1·2 m.u. procaine salt) in a single intramuscular dose.

2 g. ampicillin together with 1 g. probenecid in a single oral dose.

2 g. ampicillin in a divided oral dose with a 5-hr interval (1-day treatment). The results of treatment were compared at three different MIC values of the gonococcal strains ($< 0{\cdot}1$ μg./ml., 0·1/0·12 μg./ml., and $\geqslant 0{\cdot}18$ μg./ml.). However, there was a tendency for ampicillin in divided dose to offer the best alternative in

patients harbouring gonococci with decreased *in vitro* sensitivity. An extended study of 1,000 patients (included in the above 4,247 patients) treated randomly with a single dose of ampicillin plus probenecid, or ampicillin in a divided dose, showed the same overall results as those of the previous course. No increase in the proportion of less sensitive strains was observed during this extended study. Comparison of the *in vitro* sensitivity with the effect of treatment within the different groups showed penicillin G to be significantly less effective in patients infected with less sensitive gonococci (calculated for either MIC $\geqslant 0{\cdot}06$ or $\geqslant 0{\cdot}12$ μg./ml.). In the group treated with single-dose ampicillin plus probenecid, the treatment was significantly less effective in males with less sensitive gonococci (calculation for either MIC$\geqslant$ $0{\cdot}1$ or $\geqslant 0{\cdot}2$ μg./ml.), but not in females. No such difference was found in the group treated with the two ampicillin doses, which was thus demonstrated as the most favourable treatment alternative. Side-effects were registered in six of the 2,813 patients treated with ampicillin.

(Authors' summary)

Single-Dose Treatment of Gonorrhoea with Gentamicin. Its Effects on *Treponema pallidum* PETZOLDT, D. (1972) *Hautarzt*, **23,** 402

Single-Dose Treatment of Gonorrhoea with Sulmycin (Gentamicin)
HANTSCHKE, D., HELLER, W., STRAUB, P., and JAECKEL, A. (1973) *Hautarzt*, **24,** 30

Treatment of Gonorrhoea with a Single Oral Dose of Rifampicin
SINGH, O. P., PASRICHA, J. S., and KHANDHARI, K. C. (1972) *Indian J. med. Res.*, **60,** 1461

Non-specific genital infection

***Mycoplasma hominis* Type I Infection and Pregnancy**
DI MUST, J. C., BOHJALIAN, O., and MILLAR, M. (1973) *Obstet. and Gynec.*, **41,** 33

The object of this study was to determine if the presence of *M. hominis* type I in the vagina of pregnant women had an effect on the outcome of their pregnancies. Vaginal cultures were taken at the first attendance at the antenatal clinic, at 32 weeks, and at 36 weeks. The first 100 patients with positive cultures were the study group ; the control group consisted of 100 culture-negative women randomly selected. When possible the placenta and axilla of the newborn were also cultured. The women in the mycoplasma-positive group had a significantly higher incidence of foetal abortions and stillbirths in previous pregnancies and a higher incidence of past gonorrhoea. In the present pregnancy no differences were found as regards abortions or prematurity, but the birth weight was significantly lower than in the control group and the incidence of urinary infections, trichomonas vaginitis, and post-partum infections were also higher. Thus, in general, the outlook for babies delivered from mothers who harbour *M. hominis* type I was less favourable. It is not possible to postulate a cause-effect relationship since the role of coexisting pathology and sexual habits cannot be properly delineated. *G. W. Csonka*

The Genital Mycoplasmas
McCORMACK, W. M., BRAUN, P., LEE, Y.-H., KLEIN, J.O., and KASS, E.H. (1973) *New Engl. J. Med.*, **288,** 78

Microcinematographic Studies of *Mycoplasma hominis* Cells
BREDT, W., HEUNERT, H. H., HÖFLING, K. H., and MILTHALER, B. (1973) *J. Bact.*, **113,** 1223

Mycoplasmas in Human Infertility LOVE, W., JONES, M., ANDREWS, B., and THOMAS, M. (1973) *Lancet*, **1,** 1130

Antibodies to TRIC Agents in Tears and Serum of Naturally Infected Humans
HANNA, L., JAWETZ, E., BRIONES, O. C., KESHISHYAN, H., HOSHIWARA, I., OSTLER, H. B., and DAWSON, C. R. (1973) *J. infect. Dis.*, **127,** 95

Serum and Conjunctival Antibody Response to Trachoma in Gambian Children
COLLIER, L. H., SOWA, J., and SOWA, S. (1972) *J. Hyg. (Lond.)*, **70,** 727

Local and Humoral Chlamydial Antibodies in Trachoma Patients of Different Age Groups
MAYTHAR, B., and ZAKAY-RONES, Z. (1972) *Invest. Ophthal.*, **11,** 154

Cure and Eradication of Trachoma Agent by the Antibiotic Rifampicin
BECKER, Y. (1972) *Rev. int. Trachome*, **49,** 7

Reiter's disease

Experimental Bedsonial Arthritis
SMITH, D. E., JAMES, P. G., SCHACHTER, J., ENGLEMAN, E. P., and MEYER, K. F. (1973) *Arthr. and Rheum.*, **16,** 21

Antibiotic Therapy in Experimental Bedsonial Arthritis GILBERT, R. J., SCHACHTER, J., ENGLEMAN, P., and MEYER, K.F. (1973) *Arthr. and Rheum.*, **16,** 30

Reiter's Disease and Psoriasis
BOXLEY, J. D. (1973) *Proc. roy. Soc. Med.*, **66,** 26

Trichomoniasis

Comparison of Culture Media for the Isolation of *Trichomonas vaginalis* LOWE, G. H. (1972) *Med. Lab. Technol.*, **29,** 389

***Trachomonis vaginalis* and Yeast Vaginitis in Institutionalized Adolescent Girls**
RIS, H. W., and DODGE, R. W. (1973) *Amer. J. Dis. Child.*, **125,** 206

Candidosis

Immunoglobulin Levels and Antibody to *Candida albicans* in Human Cervicovaginal Secretions. WALDMAN, R. H., CRUZ, J. M., and ROWE, D. S. (1971) *Clin. exp. Immunol.*, **9,** 427

Human cervicovaginal secretions from 131 normal adults attending a gynaecological clinic were examined for immunoglobulin content and antibody to *Candida albicans*. The predominant immunoglobulin class of the secretions was IgA, averaging 64 per cent. of the total immunoglobulin. In a variety of conditions, such as pregnancy, sterility, vaginitis, etc., only age appeared to alter the proportions of immunoglobulin present, the percentage of IgA in the secretions falling and the IgG rising with increasing age ; no IgE could be detected. Antibody to *C. albicans* was detected in nine of ten secretions tested and found to be predominantly of the IgA class. Most of the IgA was eluted from Sephadex G-200 in the excluded peak and was associated with secretory component; it therefore had the characteristics of ' secretory IgA'.

B. M. Partridge

Intravaginal Immunisation of Humans with *Candida albicans*
WALDMAN, R. H., CRUZ, J. M., and ROWE, D. S. (1972) *J. Immunol.*, **109,** 662

The concept that the local production of secretory IgA antibody occurs in response to the local application of antigen was used as the basis for this study. The authors immunized ten women with a *Candida albicans* vaccine. Antibody was measured by a radioactive single radial diffusion technique, and antibody activity was expressed as the area of the precipitin ring. The mean rise in serum antibody was 41 to 66 mm.^{2} (pre-immunization compared to highest post-immunization), while the mean rise in the corresponding cervico-vaginal secretion antibody was from < 12 mm.^{2} to 74 mm.^{2}. Serial absorption of two cervicovaginal samples with specific anti-immunoglobulin antisera showed removal of antibody with anti-IgA, but no appreciable diminution with anti-IgG or anti-IgM. From these results the authors suggest that the cervicovaginal secretion IgA antibody was locally produced and had been stimulated by the local application of *C. albicans* antigen.

B. M. Partridge

Candida and Candidiasis. I. Cultural Conditions, Epidemiology, and Pathogenesis
DRAKE, T. E., and MAIBACH, H. I. (1973) *Postgrad. Med.*, **53,** 83

Clinical Manifestations and Therapy of Candidal Disease.
DRAKE, T. E., and MAIBACH, H. I. (1973) *Postgrad. Med.*, **53,** 120

Moniliasis and Azoospermia
AUBERT, L., and ARROYO, H. (1972) *Nouv. Presse méd.*, **1,** 39

Serologic Diagnosis of Yeast Infections DOLAN, and STRIED (1973) *Amer. J. clin. Path.*, **59,** 49

Genital herpes

Viral Studies in Patients with Non-specific Prostato-urethritis
GORDON, H. L., MILLER, D. H., and RAWLS, W. E. (1972) *J. Urol.*, **108,** 299

The 'viral' studies reported in this paper are the attempted isolation of *Herpes virus* Type 2 (HSV 2) from 39 men attending a venereal disease clinic in Houston, USA, and eleven men attending a private clinic in the same city. All were diagnosed as suffering from prostato-urethritis, and nine of the VD clinic patients also had a clinical diagnosis of genital herpes. Of fifty urethral and prostatic specimens none was virus positive; however, only four out of ten of the genital herpes lesions yielded positive virus cultures. Serological studies also failed to reveal any association between HSV 2 and prostato-urethritis.

[This is a poor study. The authors claim that prostato-urethritis is a fairly common disease but offer no supporting statistics. No criteria are given for their diagnosis of prostato-urethritis, and a considerable body of recent work on the aetiology of non-specific genital infection in men is inadequately summarized in the discussion]. *P. Reeve*

Genital Herpes: Virological Diagnosis and Antibody Response
LEINIKKI, P., and SALO, O. P. (1973) *Acta derm.-venereol. (Stockh.)*, **53,** 65

There is considerable interest in the rapid diagnosis of *Herpes simplex virus* type 2 (HSV 2) in connection with both epidemiological studies of the apparent association of this virus with cervical carcinoma and as a reliable differential diagnosis from syphilis and other causes of genital ulceration. This paper compares the efficiency of HSV 2 isolation in four cell lines with the direct identification of HSV in exfoliated cells using immunofluorescence (FA).

In this study of 44 patients (40 men and 4 women) attending a venereal disease clinic in Helsinki, thirty virus strains were isolated. Human amnion, human embryonic skin fibroblast, and BSC-1 cells (a continuous line of monkey kidney cells) all proved equally efficient for isolation; primary monkey kidney cells were less sensitive.

Virus identification from exfoliated cells was convenient and rapid but considerably less sensitive than isolation in tissue culture. Positive results with FA were obtained in 48 per cent. of cases compared with 77 per cent. where a positive virus isolation was made.

The serological response of patients varied, depending on the antibody status of the first serum sample. Only those without pre-existing antibody to HSV 2 showed a rise in titre after infection.

P. Reeve

Herpesviruses and Cancer
SYMPOSIUM (1972)
Fed. Proc., **31,** 1625

Study of Immune Cytotoxicity with *Herpesvirus hominis* Infected Cells
YANG, J. P. S., and WENTWORTH, B. B. (1972) *Proc. Soc. exp. Biol. (N.Y.)*, **141,** 759

Reactivity between *Herpesvirus* Type 2—Related Soluble Cervical Tumor Cell Membrane Antigens and Matched Cancer and Control Sera HOLLINSHEAD, A., LEE, O. B., McKELWAY, W., MELNICK, J. L., and RAWLS, W. E. (1972)
Proc. Soc. exp. Biol. (N.Y.), **141,** 688

Ultrastructural Characterization of Hamster Cells transformed following Exposure to Ultraviolet-irradiated *Herpes simplex Virus* Type 2
GLASER *et al.* (1972)
Cancer Res., **32**, 2803

Intrauterine *Herpes simplex* infection
STRAWN, E. Y., and SCRIMENTI, R. J. (1973)
Amer. J. Obstet. Gynec., **115**, 581

A Case of Genital *Herpesvirus* Infection in Pregnancy
ROBERTS, J. K. (1973)
J. Obstet. Gynaec. Brit. Cwlth, **80**, 188

***Herpes simplex* Infection of the Newborn** GERSHON *et al.* (1972)
Amer. J. Dis. Child., **124**, 739

Genital *Herpes simplex*
COMMENT (1973) *Med. J. Aust.*, **1**, 471

Different Patterns of Neurologic Involvement with *Herpes simplex* Virus Types 1 and 2: Isolation of *Herpes simplex* Virus Type 2 from the Buffy Coat of Two Adults with Meningitis
CRAIG, C. P., and NAHMIAS, A. J. (1973)
J. infect. Dis., **127**, 365

Typing of *Herpesvirus hominis* Strains by Indirect Immunofluorescence and Biological Markers
LEINIKKI (1973) *Acta path. microbiol. scand., Sect. B*, 81*B*, 65

Effect of Cytosine Arabinoside on Virus Production in Various Cells infected with *Herpes simplex* Virus Types 1 and 2
NUTTER and RAPP (1973)
Cancer Res., **33**, 166

Studies on the Neutralization of *Herpes simplex* Virus VI. Mode of Action of Complement upon Antibody-sensitized Virus
YOSHINO, K., and KISHIE, T. (1973)
Jap. J. Microbiol., **17**, 63

Characterization of *Herpes simplex* Virus Type 1 and 2 adapted to Growth at 25°C.
MAASSAB, H. F., and MCFARLAND, C. R. (1973) *J. gen. Virol.*, **19**, 151

Other sexually transmitted diseases

Condyloma Acuminata and Carcinoma of the Penis
RHATIGAN, R. M., JIMENEZ, S., and CHOPSKIE, E. J. (1972)
Sth. Med. J., **65**, 423
This is a report of six patients, seen in the University Hospital, Jacksonville, Florida, in whom squamous cell carcinoma of the penis was either associated with or preceded by condylomata acuminata. The authors discuss the aetiological and therapeutic implications of this association.
J. D. Oriel

Treatment of Large Condylomata Acuminata complicating Pregnancy
YOUNG, R. L., ACOSTA, A. A., and KAUFMAN, R. H. (1973)
~~Sth. med. J.~~, **41**, 65 OBSTET. 76/NEC
The authors, who work in the Department of Obstetrics and Gynaecology at the Baylor College of Medicine, Houston, Texas, describe the treatment of seven pregnant women with massive condylomata acuminata by electro-coagulation and curettage under general or spinal anaesthesia. The results were satisfactory, although one patient required blood transfusion after the procedure. At the time of writing, six of the seven patients had been successfully delivered vaginally and only one patient had a minor recurrence of warts during the puerperium.

As most patients with condylomata acuminata are young, the authors comment that Caesarian section should be avoided, and recommend electro-coagulation for the treatment of extensive lesions during pregnancy.
J. D. Oriel

Public health and social aspects

Adolescent Sexuality. Counseling, Contraception, Pregnancy
WOLFISH, M. G. (1973)
Clin. Pediat. (Philad.), **12**, 244

Venereal Diseases among Bengalis and Pakistanis. An Appraisal on Further Social Factors
HOSSAIN, A. S. M. T. (1973)
Indian J. Derm. Venereol., **39**, 10

Female Homosexuality—Organic Differences between Lesbian and Normal Women
GOODHART (1972)
Nature (Lond.), **239**, 174

The Doctor and Homosexuality
MCCONAGHY (1973)
Med. J. Aust., **1**, 68

Medical Secrecy
BERNFELD, W. K. (1972)
Cambrian Law Rev., **3**, 11

Venereal Diseases in Sixteenth-Century England
WAUGH, M. A. (1973)
Med. Hist., **17**, 192

Miscellaneous

Penicillin Reactions among Patients in Venereal Disease Clinics

RUDOLPH, A. H., and PRICE, E. V. (1973) *J. Amer. med. Ass.*, **223**, 499

The Venereal Disease Branch of the United States Public Health Service carried out surveys on penicillin reactions occurring in patients attending venereal disease clinics at 5-year intervals since 1954. Reactions were recorded in five categories: anaphylactic, urticarial, maculo-papular, serum sickness, and other. This paper discusses the data of the survey conducted in 1969 and compares them with those of the previous surveys.

36,048 patients were interviewed in 1969 at the clinics in 25 states, the District of Columbia and Puerto Rico. A history of penicillin sensitivity was given by 2,382 of them (6·6 per cent.). 27,673 patients were treated with penicillin, reactions being reported in 183 of them (6·61/1,000 patients treated).

Ten of 78 patients who gave a history of penicillin allergy and were treated with penicillin had penicillin reactions, while such reactions occurred in only 155 of 24,906 patients who gave no past history of penicillin sensitivity. This confirms the importance of inquiring from patients whether they have had reactions to penicillin.

The most frequent reaction observed was urticaria. Anaphylactic reactions occurred in eleven patients (0·4/1,000 patients treated) and were considered moderate to severe in five. Eight of them had received penicillin previously without untoward effect. The authors point out that many reactions to penicillin are minor and may not be reported by patients. The true frequency of reactions would therefore be higher than that recorded here.

The incidence of penicillin reactions has decreased significantly since 1959. Combined data for the four surveys showed that 25 moderate to severe anaphylactic reactions would occur per 100,000 patients treated. One death resulted from anaphylaxis in the 20-year period, a fatality rate of 0·001 per cent.

The authors point out that, although the chance of an anaphylactic reaction occurring in venereal disease clinics is small, facilities for the emergency treatment of such reactions should always be available.

C. S. Ratnatunga

Genital Bilharzia. A Report of Three Cases

BELLINGHAM, F. R. (1972) *Aust. N.Z.J. Obstet. Gynaec.*, **12**, 267

The author describes three female patients with genital bilharzia who were under his care while he was working in Zambia. Two of the patients had asymptomatic vulval and cervical granulomatous lesions and the third had diffuse soft multiple papillomata, involving the cervix and vaginal fornices. Vulval schistosomiasis has been diagnosed on occasions as condylomata acuminata, and the main importance of the conditions is the recognition of associated urinary infestation with *Schistosoma haematobium* and its unfortunate sequelae.

[With the increase in international travel, schistosomiasis undoubtedly becomes an important differential diagnosis in genital lesions among patients who have been resident in endemic areas.]

J. R. W. Harris

Behçet's Syndrome

ENTWISLE, B. R. (1972) *Aust. J. Derm.*, **13**, 114

Studies on Plasma and Protein in Behçet's Disease

AOKI, K. (1972) *Jap. J. Ophthal.*, **16**, 93

Chemotactic Activity in the Aqueous Humour of Patients with Behçet's Disease

SHIMADA, K., YAOITA, H., and SHIKANO, S. (1972) *Jap. J. Ophthal.*, **16**, 84

Behçet's Syndrome with Obstruction of the Venae Cavae

KANSU, E., *et al.* (1972) *Quart. J. med.*, **41**, 151

Behçet's Syndrome and Oral Fibrinolytic Therapy

CUNLIFFE, W. J., ROBERTS, B. E., DODMAN, B. (1973) *Brit. med. J.*, **1**, 487

Ampicillin Rashes

COLLABORATIVE STUDY (1973) *Arch. Derm.*, **107**, 74

Studies of Penicillin Allergy

(Beitrage zur Penicillin Allergie) MESZAROS, C., DEBRECZENI, M., and TAMASI, P. (1973) *Z. Haut-u. Geschl.-Kr.*, **48**, 227

Studies on the Absorption of Pivampicillin and Ampicillin

HULTBERG, E. R., and BACKELIN, B. (1972) *Scand. J. infect. Dis.*, **4**, 149

Management of Gonorrhoea and Syphilis

LOPEZ, W. A. (1973) *Med. J. Aust.*, **1**, 303

Epidemiological Treatment of Syphilis and Gonorrhoea

LEADING ARTICLE (1973) *Lancet*, **1**, 1165

Venereal Disease

LEADING ARTICLE (1973) *Med. J. Aust.*, **1**, 269

On the Problem of the Aetiology and Pathogenesis of Itching of the Ano-genital Area

SUKOLIN, G. I., and PARMENOV, A. I. (1973) *Vestn. Derm. Vener.*, No. 3, 42

Peyronie's Disease and Diabetes Mellitus

CHIMÈNES, H. (1972) *Nouv. Presse méd.*, **1**, 2108

Studies on Development of a Vaginal Preparation providing both Prophylaxis against Venereal Disease, Other Genital Infections and Contraception. I. Venereal Disease Prophylaxis, Past Experience, Present Status, and Plans for Future Studies

CUTLER, J. C., UTIDJIAN, H. M. D., SINGH, B., and ARNOLD, R. C. (1973) *Milit. Med.*, **138**, 88

Anterior Transanorectal Approach for Posterior Urethral Strictures
GECELTER (1972)
S. Afr. J. Surg., **10,** 189

Leucokeratosis and Kraurosis of the Penis, Balanitis Xerotica Obliterans (Literature survey)
LOMYSKIN, A. I. (1973)
Vestn. Derm. Vener., No. 2, p. 72

Congenital Curvature of Penis: Successful Results with Variations in Corporoplasty
SAALFELD *et al.* (1973)
J. Urol. (Baltimore), **109,** 64

Priapism in Sickle Cell Disease: Report of Five Cases
KARAYALCIN *et al.* (1972)
Amer. J. med. Sci., **264,** 289

Management of Priapism
MOLONEY and SULLIVAN (1972)
Amer. Surg., **38,** 671

Causes and Management of Impotence
COOPER (1972)
Postgrad. med. J., **48,** 548

Clinical Aspects of Bacteraemia after Manipulation of the Genitourinary Tract
SULLIVAN, N. M., SUTTER, V. L., MIMS, M. M., MARSH, V. H., and FINEGOLD, S. M.
J. infect. Dis., **127,** 49

Pathogenicity of the L-phase of Bacteria CLASENER (1972)
Ann. Rev. Microbiol., **26,** 55

Sources of *Neisseria lactamicus*
HOLLIN, D. G. (1973)
Lancet, **1,** 1010